# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/507,941 | 02/22/2000 | Masato Ochiai | 35.C14278 | 2960 |

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

| EXAMINER |
|---|
| ENGLAND, DAVID E |

| ART UNIT | PAPER NUMBER |
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| 2143 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/507,941 | OCHIAI, MASATO |
| | Examiner | Art Unit | |
| | David E. England | 2143 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>22 June 2007</u>.

2a)☐ This action is **FINAL**.          2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1, 2, 4, 6, 8 – 10, 12, 13, 15, 17, 19 – 21 and 47 – 49* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4, 6, 8 – 10, 12, 13, 15, 17, 19 – 21 and 47 – 49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.      Claims 1, 2, 4, 6, 8 – 10, 12, 13, 15, 17, 19 – 21 and 47 – 49 are presented for

examination.

*Claim Rejections - 35 USC § 112*

2.      The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3.      Claims 8 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

4.      Independent claims cite "value which is generally set", is indefinite. The limitation is

ambiguous as to what "generally set" would entail. "Generally set" is not describing what the

invention is actually performing, i.e. the ping program either sets the value or not. Applicant is

asked to amend this limitation to point out when specifically ping would be utilized to set the

value or not, amend out the limitation or explain how this limitation is utilized in the invention

while pointing to sections of the specification.

*Claim Rejections - 35 USC § 103*

5.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.      Claims 1, 2, 4, 12, 13, 15 and 47 – 49 are rejected under 35 U.S.C. 103(a) as being

unpatentable over RFC 2390 in view of Fujimori et al. (6438607) (hereinafter Fujimori) and

what is well known in the art.

7.      Referencing claim 1, as closely interpreted by the Examiner, RFC 2390 teaches a

network apparatus comprising:

8.      a receiving unit adapted to receive data from a network, (e.g., pages 1 – 8);

9.      a setting unit adapted to set a destination logic address of the received data as a logic

address of said network apparatus in a case where the detected value indicative of a destination

physical address of the received data and a physical address of said network apparatus are the

same, (e.g., pages 1 – 8);

10.     detect a value indicative of a data length in a packet header of the data received by said

receiving unit, the packet header being provided for a predetermined protocol, (e.g., pages 1 – 8).

11.     What RFC 2390 does not specifically teach is the data length is a specific value

indicative of a specific data length different from actual data length of the received data; and

12.     a detecting unit adapted to detect a value indicative of a data length in a packet header of

the data received by said receiving unit, the packet header being provided for a predetermined

protocol.

13.     Fujimori teaches the data length is a specific value indicative of a specific data length

different from actual data length of the received data, (e.g., col. 4, lines 48 – 61, *"As an*

*additional option, error checking bit(s) may be included within the request packet. These bits*

*may be for detecting and/or correcting errors within the packet through implementation of an*

*error checking code, such as a cyclic redundancy code (CRC). Moreover, **multiple groups of***

***error checking bits may be included within the packet**, with each group dedicated to detecting*

*and/or correcting errors within a distinct portion of the packet. Thus, for example, the ARP*

*header division may include a **first group of dedicated error checking bits** for use in detecting*

*and/or correcting **errors in the header division's contents**, while the ARP data division may*

*include a second group of dedicated error checking bits for use in detecting and/or correcting*

*errors in the data division's contents."*);

14.     a detecting unit adapted to detect a value indicative of a data length in a packet header of

the data received by said receiving unit, the packet header being provided for a predetermined

protocol, (e.g., col. 4, lines 48 – 61).

15.     It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine Fujimori with RFC 2390 because it is well known that multiple protocols

may be utilized in a transmission and furthermore checking errors in different sections of the

packet can determine where specifically an error could occur, i.e., knowing that the error is in the

packet as opposed to knowing that the error is in the header or the body of the packet.

16.     Furthermore, it is well known in the art that transmitted messages are divided into

predetermined lengths that are divided by a fixed divisor. According to the calculation, the

remainder number is appended onto and sent with the message. When the message is received,

the computer recalculates the remainder and compares it to the transmitted remainder. If the numbers do not match, an error is detected. Therefore, if an error is detected the packed is no longer valid and discarded. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to check if the data length is correct or the packets would be in error and the packet would be discarded.

17.    Referencing claim 2, as closely interpreted by the Examiner, RFC 2390 and Fujimori teach all that is similar in nature above herein out. RFC 2390 and Fujimori further teaches in a case where the destination logic address of the received data and the logic address of said network apparatus differ, (e.g., pages 1 – 8, the destination address is null or zeros which is differ from the actual destination logic address of the network apparatus), the destination physical address of the received data and the physical address of said network apparatus are the same, and the detected value indicative of the data length is the specific value, said setting unit sets the destination logic address of the received data as logic address of said network, (e.g., RFC 2390 pages 1 – 8 & Fujimori col. 4, lines 48 – 61).

18.    Referencing claim 4, as closely interpreted by the Examiner, RFC 2390 said physical address is a media access control address, and the logic address is an Internet protocol address, (e.g. pages 1 – 8).

19.    Claims 12, 13, 15 and 47 – 49 are rejected for similar reasons as stated above.

20.     Claims 6, 9, 10, 17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over RFC 2390 and Fujimori in view of Anderson et al. (5850388) (hereinafter Anderson).


21.     Referencing claim 6, as closely interpreted by the Examiner, RFC 2390 and Fujimori

teach all that is similar in nature above that can be applied herein out. RFC 2390 teaches the use

of Inverse ARP, which is part of TCP/IP protocol and could be considered a type of echo request

that is utilized to find IP addresses from different devices.

22.     Anderson teaches the received data is an ICMP echo message by an ICMP protocol and

the value indicates a data length of the ICMP echo message, (e.g. col. 12, lines 22 – 56 & col. 20,

line 54 – col. 21, line 30). It would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Anderson with the combine teachings of RFC 2390 and

Fujimori because using an ICMP echo is not only well known in the computer arts to aid in

finding devices on a network. Furthermore, utilizing a data length, sometimes known as a

"checksum", "CRC" or error checking bits, allows the end system to check for errors in the

packet if the data length is not to the predetermined length.


23.     Claims 9, 10, 17, 20 and 21 are rejected for similar reasons stated above.


24.     Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC

2390 and Fujimori in view of Kano et al. (6310858) (hereinafter Kano).

25.      As per claim 8, as closely interpreted by the Examiner, RFC 2390 teaches a network

apparatus comprising:

26.      a receiving unit adapted to receive data from a network, (e.g. pages 1 – 8);

27.      a detecting unit adapted to detect a value in a packet header of the data received by said

receiving unit, the packet header being provided for a predetermined protocol, (e.g. pages 1 – 8);

and

28.      a setting unit adapted to set a destination logic address of the received data as a logic

address of said network apparatus in a case where the detected value is a specific value different

from a valued which is generally set by a ping program, (e.g. pages 1 – 8);

29.      and a destination physical address of the received data and a physical address of said

network apparatus are the same, (e.g. pages 1 – 8), but does not specifically teach detecting TTL;

30.      the TTL value being referred to by a router and reduced by the router when the router

receives the data. Kano teaches detecting TTL being a specific value different form a value

which is generally set under the predetermined protocol, (e.g., col. 4, lines 40 – 65);

31.      the TTL value being referred to by a router and reduced by the router when the router

receives the data, (e.g., col. 1, lines 17 – 30). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to combine Kano with the combine teachings of

RFC 2390 and Fujimori because if the TTL value is not greater than a specific number than the

packet will be terminated and returned to the sender indicating that the device is not within the

allotted hop count given and the device would have to send out another packet with a higher TTL

number in order to reach the destination device. Furthermore, reducing the TTL ever time it

traverses a node or a router is well known in the art for that specific functionality, i.e., once the

TTL value reduces to 0 the packed it canceled. The point of using TTL is so the packet does not

continually hop from node to node for an over extended period of time.

32.    Claim 19 is rejected for similar reasons stated above.

*Response to Arguments*

33.    Applicant's arguments, see pages 9 and 10 of the Remarks, filed 06/22/2007, with respect

to the 112 Rejections have been fully considered and are persuasive.  The 112 Rejections have

been withdrawn.

34.    Applicant's arguments filed 06/22/2007 have been fully considered but they are not

persuasive.

35.    **In the Remarks**, Applicant argues in substance that the RFC 2390 and Fujimori do not

teach that the destination logical address of the received data is not set as the logical address of

the receiving station. Rather, the logical address of the receiving station is provided in the

response to notify the requester of the logical address of the receiving station.

36.    As to the first remark, the Applicant's interpretation of the prior art reads on the claim

language that is submitted. Applicant's claimed invention sets a logical address in **a packet** that

is received. This is the same as the prior art. The prior art teaches setting a logical address **in a**

**field of a packet** that is returned to the requester. The logical address that is **written in the field**

is the logical address of the device that has the same MAC address.

37.    All other arguments are similar to the one addressed above.

### *Conclusion*

38.    The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

39.    a.    Weiman U.S. Patent No. 6141690 discloses Computer network address mapping.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David E. England whose telephone number is 571-272-3912.

The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Examiner
Art Unit 2143

DE

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100